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Abstract

The 2008 crisis had a significant impact on household employment in some European countries. An analysis of the EU Statistics on Income and Living Conditions generated a new cross-national typology of household employment structures and showed how these changed during the crisis and austerity period, capturing the experiences of high and low qualified households. Findings indicate that dual earning households are not always a consequence of gender equality but result from economic necessity or employment opportunities. The re-emergence of traditional male breadwinner households is often the result of female unemployment, especially for lower educated women. An increase in female single earners and workless households is evident in countries hit hardest by the employment crisis. The value of this cross-national typology, rooted in the interaction of educational effects and employment opportunities, is allowing comparison both within and between European countries, going beyond established typologies based on policy frameworks or gender cultures.

Keywords: Austerity, dual earner, economic crisis, employment opportunities, EU-SILC, female breadwinner, household employment, male breadwinner, recession, workless households.

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Introduction

Comparative research on employment and the family has been largely driven by a focus on typologies, built on analysis of policy regimes and gender cultures (O'Reilly, 2006). Critiques of comparative regimes point to the frequent neglect of diversity within countries and country types (Daly and Rake, 2003), the existence of contradictory policy regimes (Saraceno and Keck, 2011) and the rather static analysis that underestimates change and hybridization within regime types (Rubery, 2011).

The present article builds on previous empirical analyses of household employment patterns (Haas et al., 2006; Lewis et al., 2008; Hook, 2015) and broadens their scope by including a wider number of countries within an enlarged Europe. A comprehensive typology of household employment uncovers similarities between countries not often grouped together in established typologies based on policy regimes or gender cultures. The empirically informed typology here illustrates internal diversity within countries, as well as between regime types. By including an analysis by educational differences, it reveals how household arrangements are not only indicative of more progressive or traditional gender relations, but reflect differences in employment opportunities and economic constraints in different parts of Europe. This provides an original and systematic examination of the varied impact of the recent economic crisis and period of austerity on changing patterns of household employment.

The article is structured as follows. First, it reviews the insights from comparative work and welfare typologies based on policy regimes and gender cultures and argues how an empirically informed typology of the household employment addresses some of the critiques of regime type analysis. Second, it outlines a typology of household arrangements in Europe before the crisis using micro-level data from the European Union Statistics on Income and Living Conditions (EU-SILC) (2007). Third, building on the work of Hook (2015), it identifies how female educational attainment affected household employment patterns pre-crisis (2007). Fourth, it provides a more dynamic analysis over time by examining the evolution of household employment over three time points (2007-2010-2012), revealing how the dynamics of he-cession and sh(e)-

austerity (Karamessini and Rubery, 2014) differentially impacted household employment across countries (Périvier's 2018). It also shows how the crisis impinged unequally on households with different educational attainment in different countries. The discussion of these findings advances our understanding of how changes in dual earner and male breadwinner households need to be interpreted in country-specific contexts in relation to economic constraints, educational attainment and job opportunities for women in different parts of Europe.

Comparing household employment structures

Typologies in comparative cross-national employment research have used concepts such as decommodification (Esping-Andersen, 1990, 1999) to distinguish between liberal, conservative and social democratic welfare states. More critical gender sensitive approaches have differentiated between strong, weak and modified male breadwinner societies (Lewis 1992), distinguishing between different forms of familialism (Leitner, 2003; Saraceno 2016), or drawing on the impact of care regimes (Bettio and Plantenga, 2004) or gender cultures (Pfau-Effinger 2012) to explain cross-national differences in household employment.

Regime analysis can provide useful heuristic devices, especially when comparing a large number of countries. However, whereas parsimony in explanation constitutes the main advantage of typologies, it can also reveal their principal weakness (O'Reilly, 2006). Some countries fit awkwardly into these aggregated categories (Daly and Rake, 2003); policy regimes often combine contradictory policy logics (Saraceno and Keck, 2011, Saraceno 2016) and outcomes

(Stier et al., 2001); and an increasing hybridization of these established regime types has come about as a result of policy reforms to meet new challenges (Rubery, 2011). Assuming that household employment patterns 'flow' from policy principles ignores contradictions arising between policy implementation, adoption and cultural practices of different households (Haas, 2005), and how this might vary by educational level (Hook 2015).

Rather than restricting countries to a particular type, the analysis here suggests that a more flexible approach is required. Countries should be able to move between 'category' types if employment practices alter over time. The analysis focuses on the interaction between heterosexual couples, as proposed by Wallace (2002) and applied by Hook (2015) and Connolly et al. (2016). Rather than concentrating on the underlying assumptions of policy regimes or gender cultures as the key factors shaping the household organization of work, the analysis here focuses on identifying household employment patterns before, during and after the crisis of 2008 in Europe. It shows how dominant country patterns cluster into particular types also illustrating the level of internal diversity within these countries. This approach enables a more empirically grounded and dynamic understanding of the impact of the crisis on household employment.

Exposing the extent of intra-country diversity of household arrangements is often neglected in cross-national comparisons for the sake of 'neat' 'dominant type' country labels. However, Warren (2000) argues that more attention needs to be given to class differences in breadwinning types, which she measures in relation to wages and working time. Educational attainment can

be interpreted as a proxy indicator of social class. Comparing household employment structures by education draws attention to the role of labour market structures, employment opportunities and economic constraints, in contrast to comparative approaches that emphasize policies and culture as dominant and more static explanations. Educational attainment facilitates a more transparent comparison of countries that is less affected by the idiosyncratic construction of occupational status in different countries (Gregory and O'Reilly, 1996).

Women's economic necessity to work may challenge underlying societal norms about gender roles and the goals of family policy (O'Reilly et al., 2014). However, this is highly contingent on forms of labour market segmentation and local employment opportunities in given countries (Haas et al. 2006; Karamessini and Rubery 2014). Work-family arrangements need to be understood as an expression of both need and opportunity, rather than one of an abstract 'choice' around employment and care, especially in economically poorer countries. Distinguishing here between Male Breadwinner family types that are a result of female unemployment, compared to those where women identify themselves as primary care givers, and how this varies by educational level, provides valuable insights into interpreting the impact of the recent economic crisis and contributes to what we already know about the effect of policy regimes.

To address some of the critiques of existing comparative typologies this analysis sets out to examine three main research questions. First, do European countries group according to the different household employment structures and which are the most common arrangements in

these countries? Second, does household employment vary by educational attainment within countries? Third, how has the crisis and austerity impacted on household arrangements in Europe and does this vary by educational levels?

Data and approach

Previous research from Lewis et al. (2008) drew on data from the 2004 European Social Survey for the EU-15 (excluding Luxembourg and Italy). Hook (2015) analysed data for 14 European countries plus Japan and the United States. Due to issues of sample size and data availability, Hook (2015) obtained the data from the Luxembourg Income Study for most countries but was forced to use the European Social Survey for the Nordic countries, pooling the data for different years (from before and after the Great Recession). Hook (2015) acknowledged this may have an impact when comparing household employment across countries, particularly among lower skilled workers. The analysis presented here broadens the scope of previous studies by drawing on data from the EU-SILC for 26 countries.[i] EU-SILC data provides at least two important advantages. First, it allows a wider coverage of number of countries examined, including Central and Eastern Europe (CEE), which was absent from these previous analyses. Second, it permits an analysis of change over time (2007, 2010 and 2012),[ii] capturing the impact of the economic recession and subsequent austerity policies and minimizing comparability problems such as those identified by Hook (2015).

This analysis is restricted to heterosexual, prime age (25-55 years old) couples, following the criterion used by Warren (2007: 324) in order to reduce some of the cross-national variability due to extended education for the young and early retirement for older workers. This differs again from Hook (2015) and Lewis et al. (2008), in that they included two-parent households with children aged 0-15 years.[iii] Single parent households were excluded as the focus was on the organization of paid work amongst couples.[iv]

The employment status of partners was used to categorize households into seven types (Box 1).[v] Employment status was derived from the variable 'Self-defined current economic status', capturing the person's own perception of their main activity.[vi] This individual information was co-located within dual parent households, and crosschecked against reported working hours.[vii] Analyses were weighted by household cross-sectional weights.

Hierarchical cluster analysis was applied to 2007 data to build a typology of countries on the basis of their similarities in the distributions of the seven household types defined.[viii] Using a similar approach to Hook (2015), the robustness of these clusters was examined by comparing variation by women's educational level (low, medium, high[ix]). Allowing for change over time was enabled by comparing three time points (2007-2010-2012), before and after the economic crisis, including an analysis of variation by educational level (2012).

Box 1 Household Types

1) **Both Full-Time (BFT)**: both work full-time;

2) **Modified Male Breadwinner (MMBW)**: the man works full-time and the woman works part-time (no distinction between long or short hours part-time);

3) **Male Breadwinner-Female Carer (MBW-FC)**: the man works full-time and the woman reports being in 'domestic and care work' or in 'other situations of inactivity' unspecified;

4) **Male Breadwinner-Female Unemployed (MBW-FU)**: the man works full-time and the woman's reported status is 'unemployed';

5) **Female Breadwinner (FBW)**: only the woman is employed (either on a full- or part-time basis); the man is either unemployed or inactive, unemployment being the most common situation;

6) **Workless (WKL)**: both are unemployed or inactive, with unemployment being the most common situation;

7) **Others**: either the man is employed part-time, or at least one of them is studying or out of the labour force early and permanently (retired or disabled).

Findings

A typology of household employment in Europe before the crisis

In contrast with the three groups identified both by Lewis et al. (2008) and Hook (2015), the hierarchical cluster analysis with 2007 data identified four country groups (Box 2). Vertical lines in the dendrogram (Figure 1) connect most similar cases (countries) and clusters of countries, and horizontal lines reflect the distance (Euclidean square measure) between cases and clusters that are grouped together at each step of the process.[x] Figure 2 shows the percentage of the different household types in each of the countries.

[Figure 1. HERE]

Box 2 Country Types

Dual Earners Full-Time (DEFT) (Central and Eastern Europe, Finland, Portugal and Cyprus)

Dual Earners Mixed (DEM) (Nordic countries, France and the UK)

Multiple Modes (Continental Europe and Ireland)

Polarized (Greece, Spain and Italy)

***[Figure 2 HERE*]**

Box 3 Country abbreviations

AT-Austria	FI-Finland	NL-Netherlands
BE-Belgium	FR-France	NO-Norway
CY-Cyprus	HU-Hungary	PL-Poland
CZ-Czech Republic	IE-Ireland	PT-Portugal
DE-Germany	IS-Iceland	SE-Sweden
DK-Denmark	IT-Italy	SL-Slovenia
EE-Estonia	LT-Lithuania	SK-Slovakia
EL-Greece	LU-Luxembourg	UK-United Kingdom
ES-Spain	LV-Latvia	

Dual Earners Full-Time (DEFT) countries

The distinctive characteristic of DEFT countries of Central and Eastern Europe, Finland, Portugal and Cyprus, were the high proportion of households with both working full-time (BFT) (over 50 percent and up to 75 percent of all households in a given country) (Figure 2). Modified male breadwinner (MMBW) households were not very significant, accounting for on average 5

percent of all households. There was some variation in the proportion of the two MBW subtypes (MBW-FC and MBW-FU), with those resulting from female unemployment being most notable. Female Breadwinner (FBW) households were also clearly identifiable in DEFT countries.

Dual Earners Mixed (DEM) countries

The DEM cluster included the Nordic countries, with the exception of Finland, and included France and the UK. This cluster had the largest share of dual earners (either BFT or MMBW) (from 69.1 percent in France to 80.6 percent in Norway); the overall employment rates here were higher than in most DEFT countries. However, dual earners were largely attributable to the high percentage of MMBW households. DEM countries had more than 40 percent of households where both partners worked full-time (BFT), and around a quarter of MMBW households. France and the UK had a smaller share of BFTs and more MBWs than the Nordic countries.

Multiple Modes countries

This cluster included Continental Europe and Ireland and was characterized by a relatively equally division between three main categories (BFTs, MMBWs and MBW-FCs). There was however some degree of variation between countries in this cluster. The share of MMBW households in Germany (38.9 percent) and the Netherlands (51.9 percent) far exceeded that of BFTs: 24.9 percent and 13.9 percent respectively; BFT households were more evident in Belgium (35 percent). A distinctive characteristic of the Multiple Modes group is that the relative share

of BFT households was smaller and the proportion of MBW-FC households was higher than in previous clusters.

Polarized countries

The category of polarized countries for Greece, Italy and Spain, draws on the distinctions made by Lewis et al. (2008) and Hook (2015) for countries where household employment patterns were either BFT (around 40 percent) or MBW households (around 35 percent). MBW households included a significant share of those with female unemployment (MBW-FU), as was the case for the DEFT group; MMBW arrangements were much less evident.

These four clusters build on, but go beyond, the categories provided by Lewis et al. (2008) and Hook (2015) who propose three categories of countries: 'dual full-time', 'one-and-a-half earner' and 'polarization' models. The more comprehensive analysis provided here, with the inclusion of CEE countries, results in a different classification. Central and Eastern Europe cannot be assumed to be part of the 'Polarized' southern European type as suggested by Lewis et al. (2008). CEE countries, together with Portugal, Finland and Cyprus, constitute a distinctive **Dual Earners Full-Time** group with the dominant pattern of both partners working full-time (BFT) and a negligible share of MBW households compared with the **Polarized group** of Italy, Spain and Greece. Lewis et al. (2008) and Hook (2015) linked Finland with the other Nordic countries, despite its significantly lower levels of female part-time employment compared to its Scandinavian neighbours; Lewis et al. (2008) classified Portugal with the 'polarized' Mediterranean countries, despite recognising it as a 'special case'. The empirically based

categorization presented here questions the implied assumptions of similarities related to geographical proximity or broadly comparable policy regimes.

Additionally, the UK and France also present some interesting challenges to previous classifications. Lewis et al. (2008) positioned these as 'one-and-a-half earner' countries. Hook (2015) described the UK as a 'one-and-a half earner' type and France as Polarized. However, here the analysis suggests that both countries are more similar to the Nordic, **Dual-Earners Mixed (DEM**) countries with a mixture of BFT and MMBW arrangements. **DEM** countries can also be distinguished from the third **Multiple Modes** group, composed of the continental countries and Ireland. The **Multiple Modes** category more accurately captures the co-existence and diversity of working arrangements in these countries than the 'one and a half earner' model generally used in the literature; this suggests that the MMBW is the dominant type of household employment in these countries (Lewis et al., 2008; Hook, 2015).

Briefly, this new typology of household employment arrangements identifies significant similarities between countries that are rarely classified together, drawing attention to the role of a country's labour market characteristics and employment opportunities for women. Before discussing these dimensions in more detail, it is worth exploring the diversity within and between cluster types in relation to the second research question that focuses on how household employment patterns vary according to women's educational attainment.

Variation in household employment across educational levels

In this second step of the analysis countries were clustered according to the distribution of the different household employment types by the educational attainment of the woman (Figure 4). The dendrogram (Figure 3) shows that the hierarchical clustering reproduced the same four country groups identified before. The main difference with the results of the previous clustering (Figure 1) is the increased heterogeneity observed among DEFT countries.

This analysis revealed a universal effect across all countries: the more educated the woman was, the more likely she was to be in a BFT arrangement and the less likely she was to be in a MBW arrangement (Figure 4). However, this variation by educational level showed a different intensity between countries and across clusters. Additionally, the pattern of distribution of the MMBW type by educational level was less evident.

Looking at the findings across country groups, it was in the **Dual Earner Full-Time (DEFT**) cluster, excluding Finland, where there was more internal variation by educational level. Low educated women were more likely to be in MBW or Workless households. In this cluster a large share of MBW households were attributable to female unemployment (MBW-FU) instead of primary caregiving (MBW-FC). In several DEFT countries (SK, SI, CZ and PL) female unemployment was in fact the predominant feature accounting for MBW households amongst both low and middle educated women.

[*Figure 3. HERE]*

[Figure 4 (A&B) HERE].

The **Polarized** cluster also revealed strong differences by educational level: higher educated women were more likely to be in BFT households and less well-educated women in Male Breadwinner-Female Caregiver arrangements. Male Breadwinner households resulting from female unemployment were equally distributed across educational levels in Italy and Greece, whereas in Spain they affected more middle and lower-educated women.

Educational effects were not so evident in **Dual Earners Mixed (DEM)** countries, especially in Denmark, Norway and Iceland. Sweden, France and the UK show a pattern of distribution of the BFT and MBW types that is comparable to that of the polarized countries despite less intense. MMBW households were most prevalent among middle-educated women in the DEM cluster, except in Iceland and France. Similar patterns were apparent in the **Multiple Modes** group, where MMBW households were also more common among middle-educated women.

These findings are in contrast to those obtained by Hook (2015). Whereas the clusters identified here held when we considered the woman's educational attainment, Hook's Modified Male Breadwinner group split into two. These contrasting findings may be due to a number of reasons, namely the different countries and years analysed, the use of different data sources, household categories or reference populations. While Hook's explanation of work-family arrangements is based on types of familialism and levels of income inequality, the analysis here suggests the role of labour market structures and employment opportunities also need to be considered.

The differences between our approaches are evidenced when looking at the Dual Earner Full-Time group. According to Hook (2015: 19), '*under supported or default familialism, if income inequality is high, women with high earnings potential will be likely to be in dual full-time families, whereas women with lower earnings potential will be more likely to be in male breadwinner or one and-a-half earner families*'. This prediction should fit the evidence here for the DEFT cluster, since most of these countries (excluding Finland, Slovakia and Slovenia) score low in defamilialization (Saraceno and Keck, 2011) but high in income inequality measures.[xi] Indeed, DEFT countries showed considerable variation in household employment by educational level. However, contrary to Hook's prediction (2015), having both partners working full-time remained the most common arrangement among low-educated households in every country in the DEFT cluster (30-55 percent of the households), with the exception of Cyprus. Moreover, it is not the MBW-Female Caregiver type that accounted for most of the remaining households, but other situations related to the lack of employment opportunities (MBW-FU, FBW and WL) or other structural characteristics of the labour market (early retirement or disability under the Others category).

In sum, these findings reveal that labour market characteristics and economic constraints play a major role in structuring the household organization of employment. The evidence endorses the need to take into account the structure of employment opportunities and the need for couples to work, alongside the impact of policy regimes and gender cultures. Additionally, it shows that global measures of economic inequality, as used in Hook's (2015) explanation, do not fully

account for the differential forms of labour market segmentation and their effect on household employment.

The impact of the crisis on household employment

The effects of the crisis on household employment are addressed by looking at the rise of those situations derived from job destruction and decreased availability of employment[xii]: Male Breadwinner with female unemployment (MBW-FU), Female Breadwinner (FBW) and Workless (WKL) households. Figure 5 shows the evolution of the percentages of the different household types over three time points: the pre-recessionary starting point of 2007 and two subsequent periods (2010 and 2012). The presentation of data on these two periods captures the impact on employment of the first recessionary period (2008-2009) as well as that of the subsequent implementation of austerity policies (from 2010). Distinguishing between MBW-FU, FBW and WKL households permits to analyse to what extent job losses affected men and women differently over both time periods and how this was reflected in the patterns of household employment. In some countries, 2012 data show the signs of economic recovery. The analyses from Figures 3 and 4 (2007), are replicated in Figures 6 and 7 with 2012 data, revealing household employment patterns by educational level at the end of this five-years window. Although it is not possible to neatly distinguish between the short-term impacts of economic recession and the longer-term trends affected by the take up of policy initiatives or the slow-moving change in the way family is organized, nevertheless, this provides a very powerful picture of the vulnerabilities of some households during this period.

[Figure 5 (A&B HERE].

[Figure 6 HERE].

[Figure 7 (A&B) HERE].

Overall, the effects of employment destruction were more apparent in the DEFT and Polarized groups. This can be observed in the general increase of MBW-FU, FBW and WKL households in these countries as well as Ireland, previously associated with the Multiple Modes group (Figure 5). Across all clusters, low educated households were affected the most by unemployment. This was also evident even in countries less affected by employment destruction (i.e. Norway, Sweden, Germany, Austria or the UK). However, the unequal distribution of these situations was most evident in countries with a high incidence of unemployment (CEE, Mediterranean countries and Ireland).

Looking at the effects of the 'he-cession/sh(e)-austerity' (Karamessini and Rubery, 2014) refers to the general trend by which job destruction in the recession had a severe impact on male dominated sectors (manufacturing, construction), whereas the subsequent implementation of austerity policies affected to a larger extent employment in the public sector, where women are overrepresented. Austerity policies may have also hindered female employment by cutting down on services provision (i.e. childcare) that facilitated their participation in the labour market. Additionally, in some countries such as the UK, cuts in tax credits modified the financial incentives for female employment in dual earner households (Rubery and Rafferty, 2013).

Findings also appear to suggest that the economic recovery observed in some countries (i.e., Baltic countries) has benefited male employment to a greater extent, consolidating the persistence of the MBW-FU as an involuntary situation.

The recession had a significant impact on the **Dual Earner Full-time** cluster, as reflected in the decline in BFT households between 2007 and 2010 in every country but Poland and the Czech Republic. The decrease was especially strong in the Baltic countries, which saw an important rise in FBW households, reflecting the impact of the he-cession, but also significantly in MBW-FU and WKL households. In 2012, most countries in the group seemed to be recovering from employment destruction, although they had not reached 2007 levels of BFT. However, in Baltic countries, FBW households seemed to be decreasing more quickly than MBW-FU, suggesting that economic recovery was benefiting men more than women. An interesting case is Portugal, where the recession triggered a significant increase in MBW-FU households (2010 data), possibly due to employment destruction in sectors such as manufacturing where a high proportion of Portuguese women are employed. The rise of MBW-FU and Workless households was concentrated in low educated households across the countries in the cluster (Figure 7).[xiii] The crisis reinforced the share of MBW households due to constraint rather than choice in this cluster, given that these women are seeking and available for employment, but employment opportunities have declined, particularly for those with lower educational attainment.

Besides the DEFT group, it is the **Polarized** cluster that was most strongly affected by the recession, as well as the subsequent implementation of austerity policies, especially in Greece

and Spain. This is observed in the steep decline of BFT and MBW-FC households, and the parallel rise in MBW-FU, FBW and WKL situations (Figure 5). However, whereas most DEFT countries had experienced a recovery in the levels of BFT households by 2012, this was not the case for the Polarized countries. The huge increase of MBW-FU in Greece reflects what Périvier (2018) calls a 'race-to-the-bottom sh(e)-austerity', namely the higher incidence on female employment of austerity policies in this country. It also responds to an added worker effect, i.e. the increased female participation to compensate for the loss of household income, which was also the case for Spain (Addabbo et al., 2013). In this country there was a major increase of MBW-FU households already in 2010, later reinforced by austerity policies. In contrast to the DEFT group, the incidence of MBW-FU was more evenly distributed across categories of educational attainment in polarized countries (Figure 7). This probably reflects the impact of austerity policies on skilled employment as in the public sector. Low educated women were clearly more present in WKL households, whereas the huge increase in FBW households in Spain reflects the strong recessionary impact on employment in construction and manufacturing and its late recovery.

Less remarkable are the trends in the **Dual Earners Mixed** and **Multiple Modes** clusters, where the impact of the recession on household employment was minor or even imperceptible for some countries.[xiv] Interestingly though, the relatively small percentages of situations related to lack of employment (MBW-FU, FBW, WKL) were strongly concentrated in lower-educated households in most countries in these clusters (Figure 7).

One major exception in the Multiple Modes group is Ireland where the severe impact of the recession on employment can be seen in the steep increase in FBW and WKL households, but interestingly only in a minor increase of MBW-FU situations. No added worker effect followed the severe destruction of male employment in Ireland, in contrast to the Mediterranean countries, as shown by Bredtmann et al. (2017). Despite these differences, the situation of Ireland by 2012 was more similar to that of the Polarized countries than to the one of the Multiple modes group. This is reflected in the findings of the hierarchical cluster analysis (Figure 6), which showed that the four country clusters remained largely the same with the single but noticeable change of Ireland moving from the Multiple Modes to the Polarized group.[xv]

Discussion

This analysis provides an empirically informed typology identifying the broad lines of household employment patterns within and across Europe taking account of change over a very dramatic but relatively short period of time. The theoretical implications of this analysis encourage us to re-evaluate the basis of previous typologies. The inclusion of CEE countries not only provides a wider coverage in terms of the number of countries, resulting in a typology that differs significantly from previous analyses (Lewis et al., 2008; Hook, 2015). The lack of correspondence with established typologies of policy regimes (Leitner, 2003; Saraceno and Keck, 2011)[xvi] highlights the need to consider the role of economic structures, labour market characteristics and employment opportunities in comprehensive explanations of the household organization

of labour. This becomes evident when attempting to account for the patterns observed in DEFT and Polarized countries, most affected by the employment crisis. For these reasons, the discussion of the findings draws mainly on examples from these groups.

In response to the first research question, the article sets out to understand whether European countries grouped according to the different household employment structures, and which were the most common employment arrangements in these countries. Four types were empirically identified: Dual Earners Full-Time (DEFT) (CEE, Finland, Portugal and Cyprus) where the dominant pattern was full-time employment for both partners; Dual Earners Mixed (DEM) (Nordic countries, France and the UK) that included full-time work for both (BFT) and a combination with full and part-time work (MMBW). In contrast, the Multiple Mode countries from Continental Europe and Ireland had a more diversified combination of BFT, MMBW and MBW households. Households in the Polarized countries (Greece, Spain and Italy) were largely divided between BFT or MBWs.

The composition or the DEFT group, including a combination of countries rarely found together (CEE, Portugal, Finland, Cyprus), appears difficult to explain by only looking at contemporary policy frameworks and gender cultures. In Central and Eastern Europe, women's integration into full-time work in the post-war period was fostered by the state in order to meet male labour shortages, full-time maternal employment being supported through subsidized childcare (Pollert, 2003). Part-time work was not developed or considered an option, in a context where two full-time wages were necessary to reach an adequate household income (Schmitt and

Trappe, 2010). Paradoxically the dual full-time model has coexisted with very traditional opinions on gender equality in these countries (Kocourková, 2002).

The inclusion of Finland, Portugal and Cyprus in the DEFT model can largely be explained in relation to the relative importance of agricultural employment and specific economic developments: the active role of women in agriculture, on a full-time basis, curtailed the expansion of MBW families associated with the emergence of an industrial society (Fouquet et al., 2002). According to Pfau-Effinger (1998), in Finland during the 1960s over 90 percent of women were employed in agricultural family businesses. The gender specific but egalitarian division of labour within the agrarian family translated into high shares of female employment on a full-time basis, often in service jobs in the public sector (Pfau-Effinger, 1998). In Portugal, alongside a high proportion of employment in agriculture, women moved into full-time jobs in services and manufacturing due to labour shortages created by male emigration and compulsory military recruitment for the Portuguese colonial wars in Africa during the 1960s and early 1970s (Tavora, 2012). The persistence of a low wage economy in Portugal made a dual income family a necessity in this country too. Cyprus shares some comparable characteristics with Portugal and had a higher share of women in non-farm employment even in 1979 (House, 1983: 82).

The DEFT category illustrates the need to explain the large-scale incorporation of women into full-time waged employment in these countries by taking into consideration the role of major economic developments from a historical perspective: traditions of female employment in the agriculture, rapid transitions in economic structures and/or conjunctures of male labour

shortages have contributed to shape the DEFT model, as well as the political mobilisation and formation of how women should be economically included (Naumann, 2005).

The idea that female employment in CEE countries is predicated on full-time work largely out of economic necessity has been widely discussed in the literature (Pollert, 2003; Schmitt and Trappe, 2010). However, it has rarely been pointed out that the MBW too could be a matter of constraint rather than choice, as a result of female unemployment (Haas et al., 2006). The analysis presented here provides the empirical basis for this argument. Distinguishing between the traditional Male Breadwinner with a Female Caregiver and those resulting from female unemployment proves analytically relevant in revealing apparent similarities with different underlying causes; these reflect attitudinal dispositions, societal norms (O'Reilly et al., 2014) and employment opportunities. MBW households as a result of female unemployment are particularly apparent in the DEFT and Polarized groups. The comparatively high level of MBW households in most CEE countries was surprising for Haas et al. (2006), considering the economic conditions that make two incomes necessary to secure an acceptable living standard in these countries. They concluded that this outcome was probably involuntary and a result of female unemployment. This article now provides evidence to support this argument, revealing that this is not only the case for CEE Europe, but also importantly for the Mediterranean countries in the **Polarized** group. This point is strengthened by looking at the patterns by educational level and at the impact of the crisis.

The second research question sought to examine within-country diversity in household employment related to female educational attainment. A general educational effect was identifiable, albeit with varying intensities across countries: the less educated the woman, the more likely she would be in a MBW household and the less likely she would be in a BFT arrangement. Variation in household arrangements by educational level was strongest in the DEFT and Polarized groups, and situations related to unemployment were particularly concentrated among the low educated. In most DEFT and Polarized countries, a significant or even the largest share of MBW households were due to female unemployment even before the crisis, especially amongst the lower educated. Less variation by education was observed in the DEM and Multiple Modes groups. MMBW households were found in larger percentages among the middle-educated in these countries.

The analysis of the DEFT group in the light of this evidence provided again relevant theoretical insights. Whereas an extension of Hook's (2015) arguments, based on types of familialism and levels of income inequality, would predict that the MBW would be the main arrangement among low educated households in the DEFT group, it has been shown that it is BFT households that are most common. Moreover, it is basically situations deriving from the lack of employment opportunities (MBW-FU, FBW, WKL) or other structural characteristics of the labour market that account for a larger percentage of the remaining households. These findings highlight the role of economic constraints and employment opportunities to work, explanatory factors that gain even more salience when looking at the impact of the crisis.

The third research question inquired about the impact of the crisis and austerity on household arrangements and how this varied between countries and by educational levels. The effects of the decreased employment opportunities are reflected in the rise of MBW-FU, FBW and WKL households, especially in the DEFT and Polarized groups, and more strongly among low educated households. The analysis of household employment over the different time points (2007-2010-2012) reflects significant differences in the effects of recession and austerity on household employment, as well as different patterns of recovery.

One main finding was the re-emergence of MBW households as a result of female unemployment in countries hit hardest by the crisis and austerity. In Central and Eastern Europe, MBW-FU households increased steeply during the recession, especially in the Baltic countries and among the low educated; these were decreasing more slowly than FBW or WKL households thereafter. In Mediterranean countries, the increase of MBW-FU households affected women across all educational groups and seems to reflect the combined incidence of austerity policies and an added worker effect. Conversely, MBW-FU households saw only a minor increase in Ireland, where the strong impact of the crisis on male employment did not have the same encouraging effect on female labour market participation as in Greece or Spain. In spite of this, Ireland's household structures looked more similar to those of the Polarized countries in 2012, particularly due to the rise in FBW and WKL households, so the country moved from the Multiple Modes cluster in 2007 to the Polarized cluster in 2012.

Conclusions

This empirically based classification contributes to cross-national comparisons in that it broadens the scope of previous analyses, both in terms of number of countries and years covered. It is more inclusive of an enlarged European Union and it is built on more recent and systematically comparable data allowing us to check for the typology's robustness over time, capturing at the same time the impact of the recent of economic recession and the implementation of austerity policies. It also draws attention to theoretically relevant issues for the analysis of household employment in comparative perspective.

Findings contrast with previous studies that have categorized European countries according to their most dominant household employment patterns (Lewis et al., 2008; Hook, 2015). They also reveal the lack of correspondence with typologies belonging to the literature on policy regimes (Leitner, 2003; Saraceno and Keck, 2011). This endorses Haas' (2005) argument that households' employment arrangements cannot be assumed to follow from policy configurations and it highlights the need to capture the causal complexity shaping these different configurations (Crompton and Lyonette, 2006). Evidence reveals the need to consider, besides policy frameworks and gendered cultures, the role of labour market structures and employment opportunities, for household arrangements may often be a matter of the families needing to work and/or the availability of employment.

This is illustrated by the examination of how certain economic developments have contributed to shape the household organization of labour in the DEFT country group. Evidence also reveals that looking at the MBW as a homogeneous category across countries may be hiding diverse situations. MBW arrangements may not only be the result of a lack of state support towards public forms of care provision nor of stronger preferences towards (female) care provided in the family, but instead a result of a lack of employment opportunities, illustrated here by the examples of DEFT and Polarized countries. This becomes even more evident when analysing patterns by educational level or looking at the re-emergence of MBW households in a context of increased unemployment during the crisis.

The theoretical implication of this discussion is not that economic structures, labour market characteristics and employment opportunities are the only or even the main factors shaping the household organization of labour. Rather, it is argued here that these have been largely omitted from comparative literature on employment and care, and that they should be brought back into the picture, together with other explanatory factors. Taking account of labour market structures and employment opportunities permits a more dynamic approach to the study of household employment, going beyond fixed typologies of policy frameworks or gender cultures, and drawing attention to the degree of stability and change within regime types and how this affects different social-economic groups over time.[xvii]

The policy implications of these findings indicate that the household organization of employment is not only contingent on dominant societal norms or policies, but is clearly affected

by the educational status of household members and their ability to find employment locally. Variation in regional economic performance within the EU impacts significantly on the outcomes of these educational and household inequalities. Gender equality policies need to be formulated in the context of these household effects reflecting different opportunities and constraints on the options available to women in the EU.

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Figures

Figure 1. ***Dendrogram (hierarchical cluster analysis of household types), 2007***

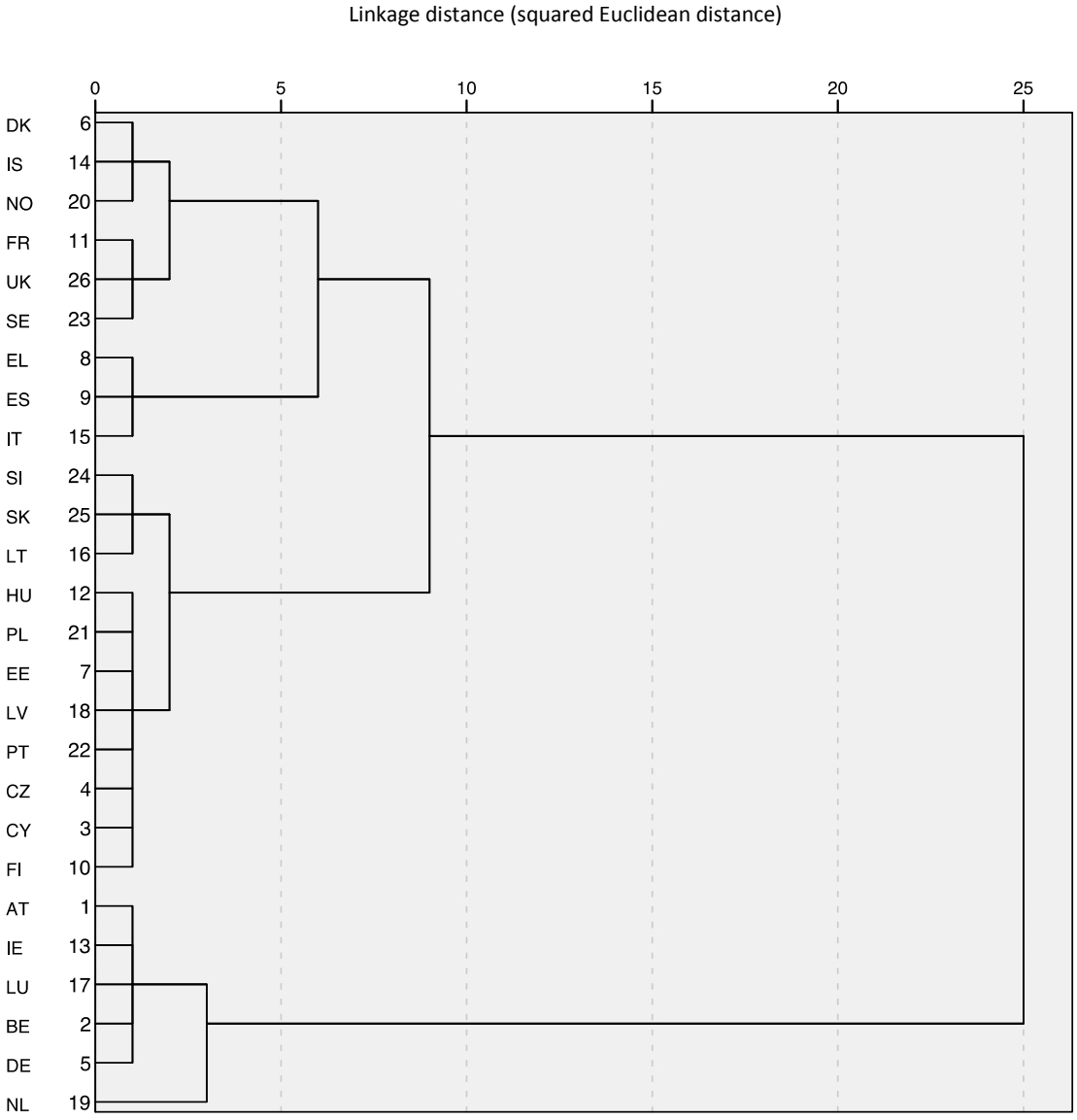


Figure 2. ***Distribution of household types within countries, by clusters of countries, 2007***

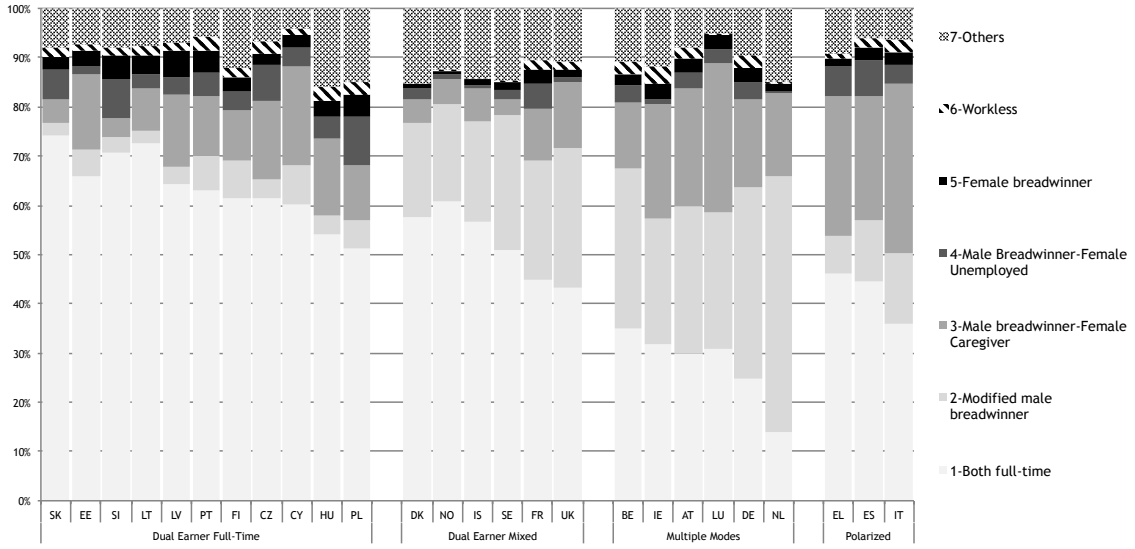


Figure 3. ***Dendrogram (hierarchical cluster analysis of household types by educational level of the woman), 2007***

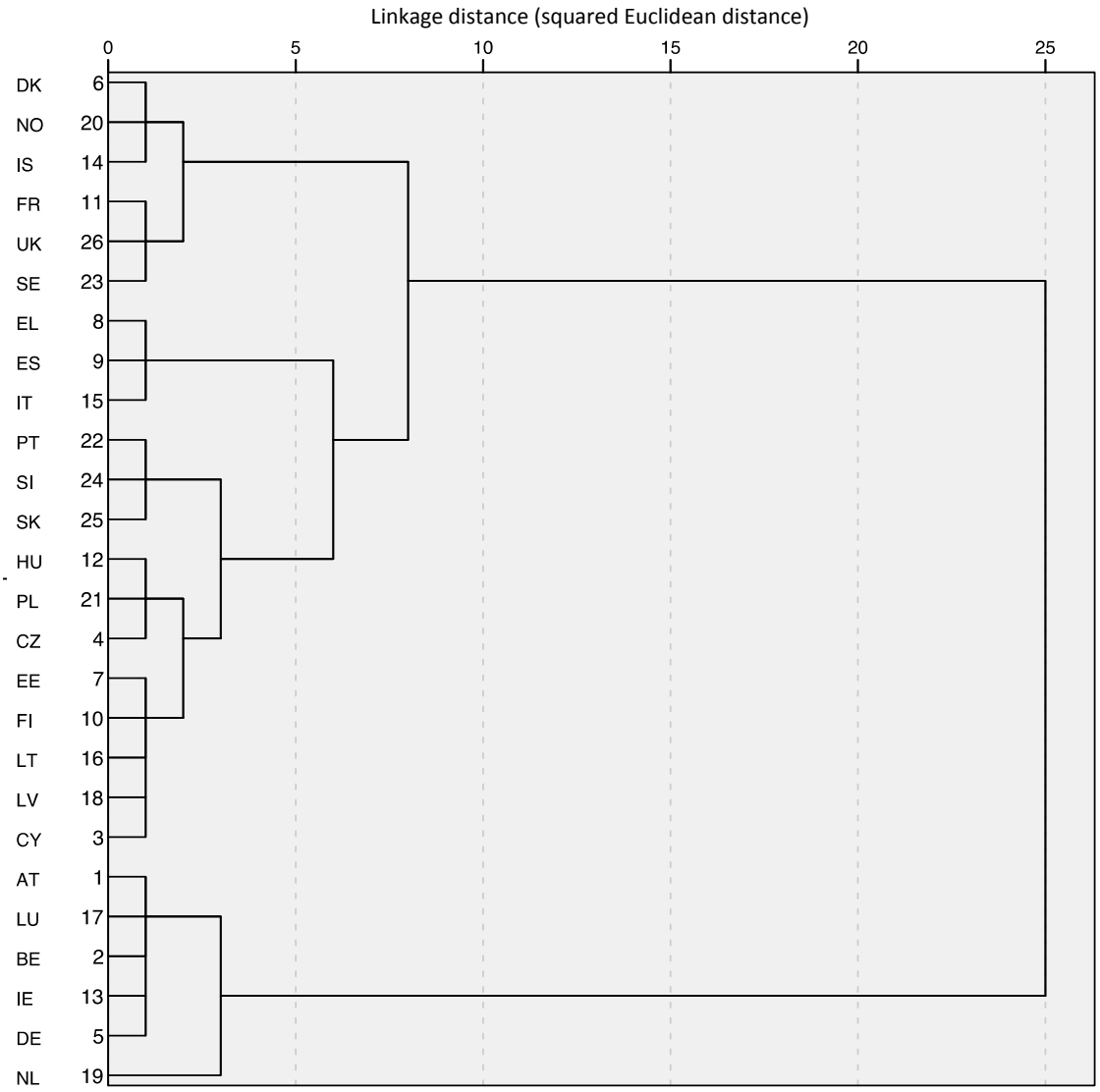


Figure 4A&B. ***Distribution of households within countries by educational level of the woman, by clusters of countries, 2007***

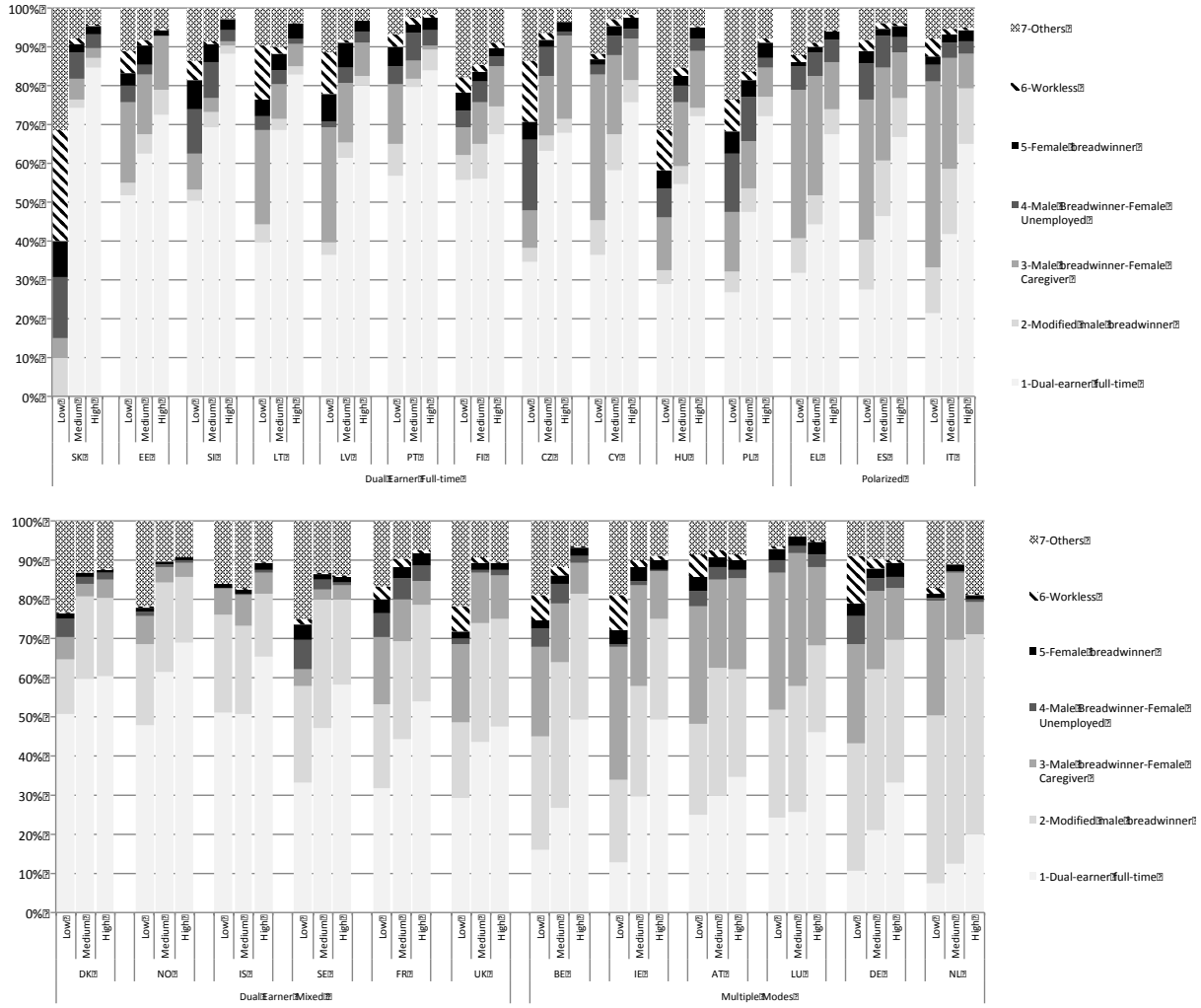


Figure 5A&B. ***Distribution of household types within countries, by clusters of countries, 2007-2010-2012***

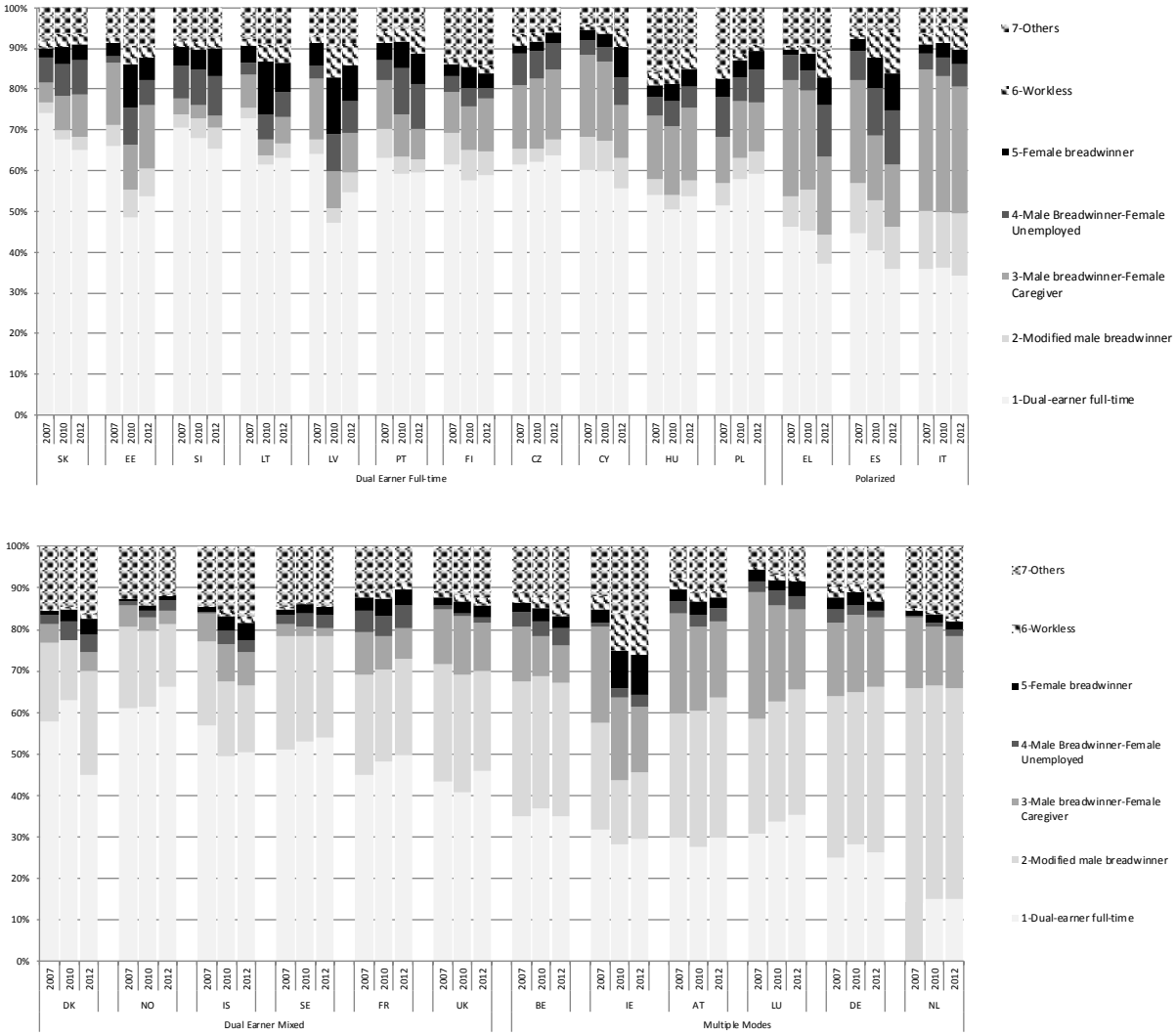
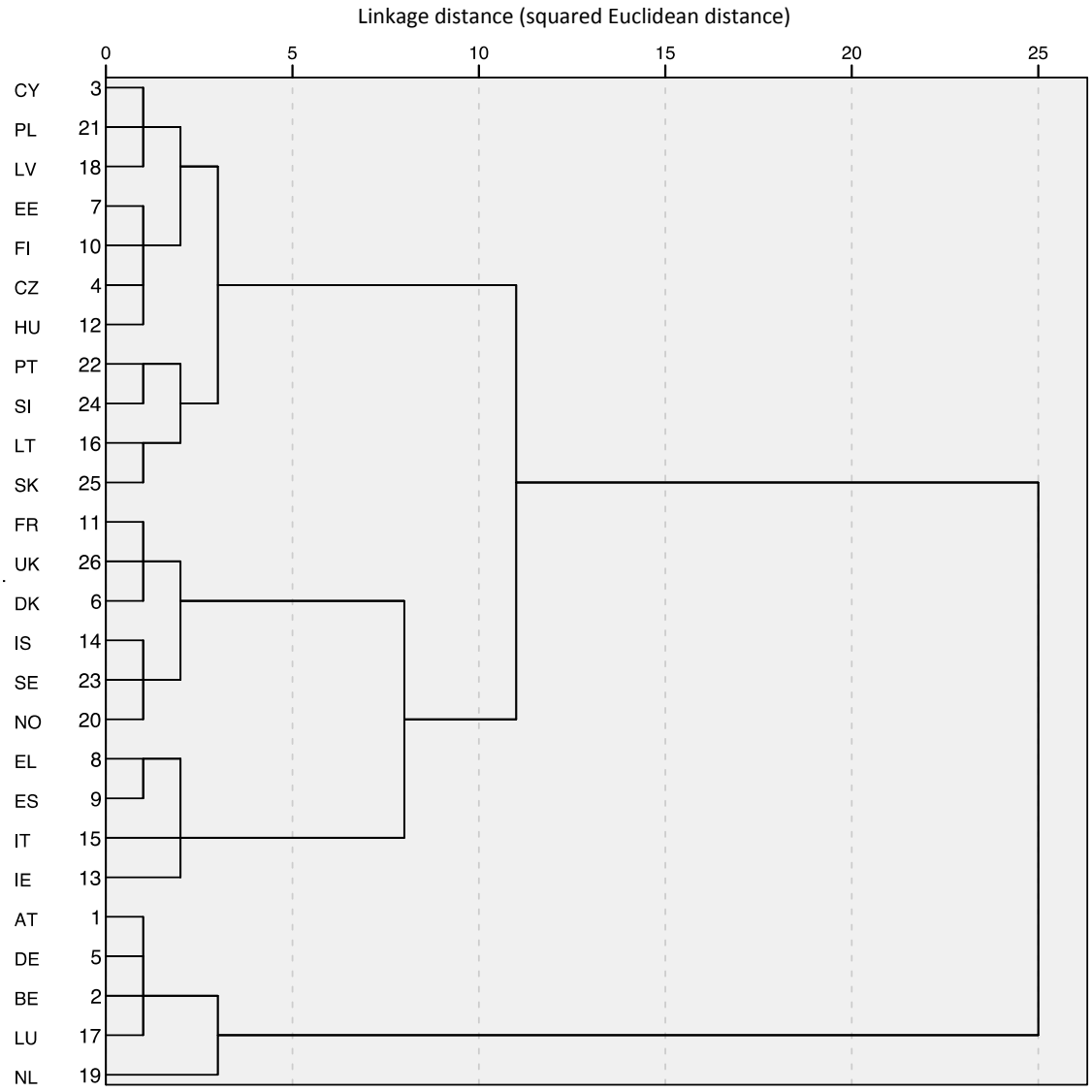
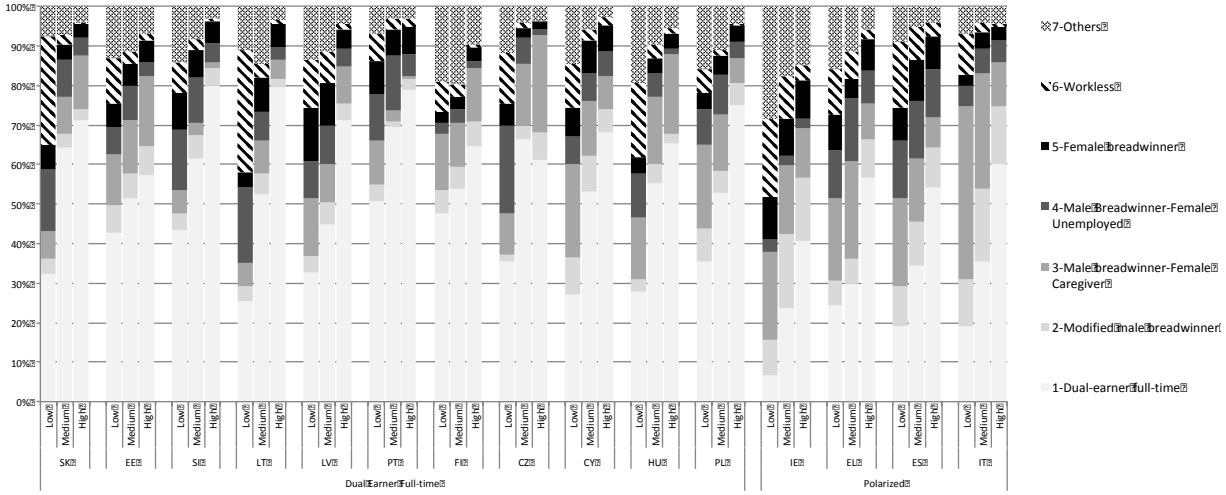
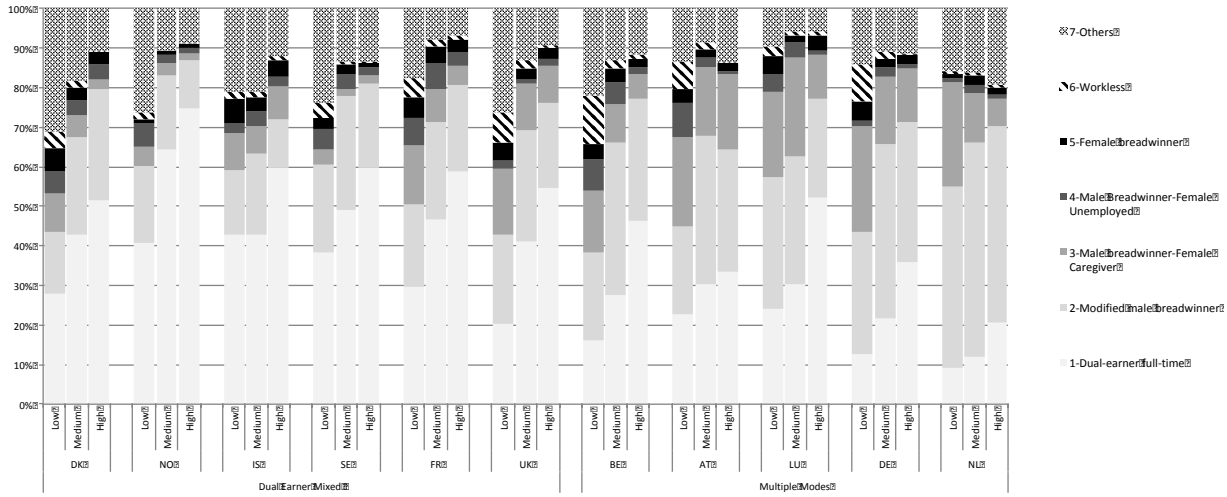


Figure 6. ***Dendrogram (hierarchical cluster analysis of household types by educational level of the woman), 2012***



Figures 7A&B. ***Distribution of households within countries by educational level of the woman, by clusters of countries, 2012***





Appendix

Distribution of households within countries by educational level of the woman (%), by clusters of countries, 2007 (table corresponding to figure 4A&B)

	DUAL EARNER FULL-TIME																																
	SK			EE			SI			LT			LV			PT			FI			CZ			CY			HU			PL		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
1-BFT	34.5	74.1	84.8	51.6	62.4	72.6	50.2	69.4	88.4	39.7	68.6	82.8	36.5	61.4	79.9	56.8	79.5	84.0	55.7	55.9	67.5	34.5	63.3	67.8	36.6	58.3	75.6	29.0	54.7	72.1	26.9	47.6	72.2
2-MMBW	6.5	2.4	2.2	3.5	5.0	6.2	3.0	3.7	1.9	4.7	2.8	2.2	3.3	4.0	2.5	8.0	2.5	5.3	6.4	9.0	7.2	3.9	3.8	3.6	8.8	9.2	5.8	3.6	4.5	2.3	5.2	5.9	4.8
3-MBW-FC	3.4	5.4	2.7	20.4	15.7	13.9	9.4	3.6	1.1	24.2	9.1	5.6	29.6	15.1	8.8	15.6	4.3	1.2	7.2	10.7	10.3	9.4	15.3	21.4	37.3	20.4	10.8	13.6	16.6	14.4	15.3	12.1	7.5
4-MBW-FU	10.2	6.6	3.5	4.5	2.3	0.2	11.2	9.2	2.9	3.4	3.5	1.7	1.4	3.8	2.7	4.6	7.1	3.9	4.3	5.3	2.5	18.2	7.7	1.0	2.7	5.0	2.4	7.5	4.2	3.5	15.0	11.4	2.7
5-FBW	6.0	2.1	2.2	3.3	5.0	1.3	7.7	4.6	2.7	4.3	4.3	3.7	7.0	6.5	3.0	4.9	2.4	3.2	4.5	2.7	2.3	4.6	1.8	2.5	1.2	2.4	2.9	4.7	2.6	2.8	5.7	4.6	4.0
6-WKL	18.7	1.5	0.3	5.5	1.3	0.4	4.8	1.0	0.1	13.9	1.7	0.2	10.6	1.0	0.0	3.3	1.8	0.7	4.0	1.7	1.3	15.8	1.9	0.2	1.6	1.7	0.6	10.3	2.0	0.2	8.3	2.1	0.9
7-OTH	20.6	7.9	4.2	11.2	8.4	5.4	13.6	8.5	2.9	9.8	10.0	3.9	11.6	8.1	3.1	6.8	2.4	1.7	17.9	14.5	8.9	13.7	6.3	3.5	11.7	3.0	1.8	31.4	15.5	4.6	23.5	16.4	7.9
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

	DUAL EARNER MIXED																	
	DK			NO			IS			SE			FR			UK		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
1-BFT	50.8	59.6	60.5	47.9	61.4	69.1	51.1	50.7	65.3	33.2	47.2	58.3	31.9	44.4	53.8	29.2	43.7	47.6
2-MMBW	14.0	21.1	19.7	20.7	22.9	16.7	24.8	22.4	16.2	24.5	33.0	21.8	21.4	24.9	25.0	19.2	30.3	27.4
3-MBW-FC	5.6	3.3	4.8	7.3	4.0	3.6	6.9	8.0	5.4	4.4	2.4	3.4	17.2	10.8	5.8	20.2	13.0	11.1
4-MBW-FU	4.6	1.8	1.8	0.9	0.6	0.8	0.2	0.4	0.5	7.5	2.3	0.8	6.0	5.5	4.1	1.4	0.7	1.5
5-FBW	1.4	0.8	0.9	1.1	0.6	0.4	0.8	1.0	1.9	3.8	1.6	1.2	3.6	2.8	3.3	1.7	1.8	1.5
6-WKL	0.5	0.2	0.2	0.3	0.0	0.0	0.0	0.2	0.4	1.6	0.3	0.5	3.2	2.0	0.7	6.5	1.3	0.5
7-OTH	23.2	13.1	12.2	21.9	10.5	9.4	16.2	17.3	10.3	25.0	13.2	13.9	16.7	9.6	7.5	21.7	9.2	10.4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

	MULTIPLE MODES																		POLARIZED								
	BE			IE			AT			LU			DE			NL			EL			ES			IT		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
1-BFT	16.1	26.7	49.3	12.9	29.5	49.2	24.9	29.8	34.6	24.3	25.8	46.1	10.8	20.9	33.2	7.3	12.4	20.1	31.9	44.2	67.3	27.5	46.4	66.6	21.5	41.7	65.1
2-MMBW	29.1	37.3	32.2	21.0	28.5	25.7	23.2	32.7	27.5	27.6	32.0	22.2	32.6	41.3	36.4	42.9	57.4	51.0	9.0	7.4	6.6	12.7	14.3	10.1	11.5	17.0	14.3
3-MBW-FC	22.6	15.0	7.7	33.8	25.5	12.4	30.0	22.6	23.2	34.9	33.9	19.9	25.1	19.7	13.4	29.4	17.0	8.2	37.9	30.7	12.2	36.2	24.0	11.9	47.8	28.6	8.9
4-MBW-FU	4.8	4.9	1.8	0.7	1.3	0.4	4.0	3.0	2.2	3.2	1.8	3.2	7.2	3.2	2.9	0.7	0.4	0.7	6.3	6.4	5.6	9.5	8.0	3.8	4.5	3.8	3.1
5-FBW	2.3	2.4	2.3	3.6	3.5	2.3	3.7	2.7	2.6	2.9	2.5	3.3	3.3	2.7	3.3	1.1	1.6	1.1	0.9	1.3	2.1	3.0	1.8	3.0	2.1	2.2	2.9
6-WKL	6.4	1.9	0.4	9.1	1.7	1.2	5.8	1.8	1.3	0.7	0.2	0.4	12.1	2.7	0.8	1.7	0.1	0.4	1.9	0.9	0.5	2.9	1.4	0.5	4.6	1.4	0.7
7-OTH	18.9	11.9	6.3	18.8	10.1	8.9	8.4	7.4	8.6	6.4	3.8	4.9	9.0	9.5	10.0	17.0	11.0	18.5	12.0	9.1	5.7	8.3	4.0	4.1	7.9	5.3	5.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Distribution of household types within countries (%), by clusters of countries, 2007-2010-2012 (table corresponding to figures 5A&B)

	DUAL EARNER FULL-TIME																																
	SK			EE			SI			LT			LV			PT			FI			CZ			CY			HU			PL		
	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012
1-BFT	74.2	67.5	65	65.9	48.5	53.8	70.7	68.1	65.4	72.7	61.4	63.1	64.2	47.3	54.6	63.2	59.3	59.5	61.4	57.5	58.9	61.6	62	63.6	60.3	59.9	55.6	54	50.3	53.8	51.4	57.9	59.1
2-MMBW	2.5	2.3	3.3	5.4	6.8	6.8	3.1	4.6	5.2	2.6	2.3	3.6	3.6	3.4	4.9	7	4.1	3.4	7.8	7.4	5.8	3.8	3.5	4	7.9	7.4	7.6	3.9	3.8	3.9	5.6	5.2	5.7
3-MBW-FC	4.8	8.5	10.5	15.2	11.0	15.4	4.0	3.4	2.8	8.4	3.9	6.6	14.8	9.2	9.9	12.1	10.5	7.4	10.2	11.0	13.0	15.7	17.2	17.4	20.2	19.5	13.0	15.6	16.9	17.6	11.3	14.0	12.0
4-MBW-FU	6.2	7.8	8.3	1.6	9.3	6.2	8	8.6	9.8	2.8	6.1	6.1	3.3	9.2	7.6	4.8	11.4	10.9	3.9	4.3	2.7	7.6	6.7	6.4	3.7	3.5	6.7	4.6	5.9	5.4	9.7	5.7	8.1
5-FBW	2.3	4.4	3.8	3.3	10.6	5.5	4.7	5	6.8	4.1	13.2	7.2	5.6	13.7	8.7	4.4	6.3	7.7	2.7	5.3	3.4	2.1	2.3	2.5	2.4	3.4	7.5	3	4.5	4	4.6	4.2	4.6
6-WKL	2.1	3	2.8	1.2	4.6	2.9	1.5	1.9	2.7	1.7	4.2	4	1.6	7.3	5.7	2.7	3.3	5.7	1.8	1.9	2.1	2.7	2.3	1.8	1.3	2	3.8	3	4.8	5.2	2.4	1.9	1.4
7-OTH	7.9	6.5	6.3	7.4	9.2	9.4	8	8.4	7.3	7.7	8.9	9.4	6.9	9.9	8.6	5.8	5.1	5.4	12.2	12.6	14.1	6.5	6	4.3	4.2	4.3	5.8	15.9	13.8	10.1	15	11.1	9.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

	DUAL EARNER MIXED																	
	DK			NO			IS			SE			FR			UK		
	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012
1-BFT	57.8	63.1	45	60.9	61.4	66.3	56.7	49.3	50.5	50.9	53.1	54	45	48.1	49.7	43.4	40.8	45.9
2-MMBW	18.9	14.3	25	19.7	18.4	15.1	20.5	18.1	15.9	27.5	25.3	24.4	24.1	22.3	23.1	28.4	28.2	24.3
3-MBW-FC	4.7	0.0	4.7	5.1	3.1	3.2	6.7	9.1	8.1	3.0	2.2	2.1	10.4	7.9	7.5	13.1	14.2	11.4
4-MBW-FU	2.3	4.5	4.1	1	1.5	2.4	0.4	3.1	2.9	2	3.2	3	5.1	4.9	5.4	1	0.7	1.4
5-FBW	0.9	3.1	3.8	0.7	1.3	1	1.3	3.5	4.2	1.6	2.3	1.9	3.1	4.2	3.9	1.7	2.8	2.7
6-WKL	0.2	0.6	1.3	0.1	0.2	0.3	0.2	1.6	1.6	0.5	0.2	0.5	1.8	1.9	1.8	1.6	1.7	2
7-OTH	15.2	14.4	16.1	12.5	14.1	11.7	14.2	15.3	16.8	14.5	13.7	14.1	10.5	10.7	8.6	10.8	11.6	12.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

	MULTIPLE MODES																		POLARIZED								
	BE			IE			AT			LU			DE			NL			EL			ES			IT		
	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012	2007	2010	2012
1-BFT	35	36.8	35.1	31.8	28.3	29.6	29.9	27.7	29.7	30.8	33.7	35.4	24.9	28.2	26.4	13.9	14.9	15.1	46.1	45.2	37	44.7	40.5	36	36	36.1	34.3
2-MMBW	32.6	32.1	32.2	25.6	15.5	15.9	30	32.7	33.8	27.8	28.9	30.2	38.9	36.8	39.9	51.9	51.7	50.8	7.7	10.1	7.2	12.2	12.3	10.3	14.2	13.6	15.3
3-MBW-FC	13.2	9.6	8.9	23.3	19.9	16.0	24.0	20.2	18.5	30.4	23.2	19.3	17.7	18.7	16.5	17.0	14.0	12.5	28.3	24.2	19.1	25.4	15.7	15.2	34.5	33.6	31.1
4-MBW-FU	3.5	3.6	4.1	0.8	2.3	2.7	3	3.1	3.3	2.6	3.5	3.2	3.4	2	1.7	0.5	1.1	1.6	6.2	4.9	12.8	7.2	11.8	13.4	4	4.6	5.6
5-FBW	2.3	3	2.8	3.2	8.9	9.7	2.9	3	2.4	2.9	2.7	3.4	2.9	3.3	2.4	1.3	2	1.8	1.4	4.5	6.7	2.7	7.6	9	2.3	3.4	3.5
6-WKL	2.5	2.6	3.1	3.5	8.8	8.5	2.4	2.3	2.2	0.5	1.3	1.4	2.6	2.1	1.9	0.6	0.8	0.7	1.1	2.1	6.5	1.9	6.6	10	2.7	4.1	5.1
7-OTH	10.9	12.3	13.8	11.8	16.3	17.6	7.8	11	10.1	5	6.7	7.1	9.6	8.9	11.2	14.8	15.5	17.5	9.2	9	10.7	5.9	5.5	6.1	6.3	4.6	5.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Distribution of households within countries by educational level of the woman (%), by clusters of countries, 2012 (table corresponding to figure 7A&B)

	DUAL EARNER FULL-TIME																																
	SK			EE			SI			LT			LV			PT			FI			CZ			CY			HU			PL		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
1-BFT	32.2	64.4	71.1	42.8	51.6	57.4	43.5	61.6	79.8	25.6	52.6	79.7	32.5	45.0	71.2	50.9	69.6	79.0	47.7	53.8	64.8	35.6	66.5	61.3	27.1	53.1	68.2	27.8	55.4	65.4	35.5	52.9	75.2
2-MMBW	4.2	3.3	3.0	6.9	6.3	7.3	4.0	5.8	4.8	3.7	5.0	2.1	4.2	5.4	4.4	3.9	1.2	2.8	5.7	5.6	6.0	1.6	3.3	6.7	9.6	9.0	5.7	3.3	4.8	2.4	8.3	5.6	5.4
3-MBW-FC	6.8	9.6	13.5	12.9	13.5	17.6	6.2	3.1	1.2	6.1	8.4	4.7	14.7	9.6	9.2	11.3	3.0	0.7	14.4	11.3	13.9	10.4	15.7	24.8	23.3	14.1	8.4	15.6	17.0	20.2	21.1	14.1	6.4
4-MBW-FU	15.7	9.3	4.5	7.0	8.8	3.6	15.1	11.6	5.0	19.0	7.2	3.2	9.5	9.8	4.5	11.7	13.8	5.6	2.7	3.5	1.6	22.2	6.6	1.6	7.0	6.9	6.5	10.9	5.8	1.2	9.1	10.2	4.0
5-FBW	6.1	3.7	3.6	5.8	5.4	5.7	9.4	6.9	5.7	3.8	8.8	5.9	13.6	10.9	4.8	8.5	6.5	6.8	2.8	2.9	3.6	5.5	2.4	1.8	7.6	8.5	6.4	4.3	4.0	3.9	4.2	4.9	4.1
6-WKL	27.5	2.5	0.3	11.8	3.2	1.4	7.5	2.7	0.6	30.8	3.5	1.1	12.3	7.8	1.7	7.0	2.7	2.2	7.7	3.2	0.7	13.0	1.5	0	11.0	2.7	2.3	18.7	3.4	1.3	6.0	1.4	0.4
7-OTH	7.6	7.2	4.0	13.0	11.3	7.0	14.2	8.2	2.9	11.1	14.4	3.4	13.3	11.4	4.3	6.7	3.1	3.0	19.0	19.8	9.5	11.7	4.0	3.8	14.5	5.7	2.5	19.5	9.6	5.6	15.8	10.9	4.5
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

	DUAL EARNER MIXED																	
	DK			NO			IS			SE			FR			UK		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
1-BFT	28.0	42.7	51.7	40.6	64.3	74.7	42.7	42.8	59.9	38.4	49.1	59.8	29.7	46.8	58.8	20.4	41.2	54.5
2-MMBW	15.6	24.7	27.8	19.5	18.7	12.1	16.6	20.4	12.2	22.2	28.7	21.1	20.9	24.7	22.0	22.3	28.0	21.8
3-MBW-FC	9.7	5.5	2.7	5.0	3.1	1.9	9.3	7.1	8.2	3.6	1.7	2.4	14.9	8.2	4.6	16.9	11.7	9.4
4-MBW-FU	5.3	4.1	3.6	5.9	2.3	1.3	2.4	3.9	2.5	5.5	4.0	1.9	6.7	6.6	3.7	1.9	1.1	1.6
5-FBW	6.1	3.0	3.0	1.1	0.9	1.0	6.3	3.2	4.1	2.7	2.5	1.2	5.2	4.4	3.1	4.4	2.6	2.7
6-WKL	4.2	1.6	0.2	1.6	0.0	0.1	1.7	1.6	1.3	3.6	0.7	0.1	5.1	1.6	1.1	7.7	2.2	1.0
7-OTH	31.1	18.3	11.0	26.3	10.6	8.8	21.1	20.9	11.9	24.0	13.3	13.5	17.4	7.8	6.7	26.3	13.1	9.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

	MULTIPLE MODES															POLARIZED												
	BE			AT			LU			DE			NL			IE			EL			ES			IT		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
1-BFT	16.0	27.7	46.2	22.6	30.5	33.5	24.2	30.5	52.1	12.5	21.8	35.9	9.2	12.1	20.5	6.5	23.7	40.7	24.4	30.1	56.6	19.0	34.4	54.3	19.2	35.4	60.1
2-MMBW	22.1	38.4	31.1	22.2	37.2	31.1	33.1	32.1	25.1	31.1	43.9	35.3	45.7	54.1	49.8	9.0	18.7	16.0	6.3	6.0	9.7	10.3	11.3	10.0	11.7	18.6	14.8
3-MBW-FC	15.8	9.7	6.3	22.6	17.3	18.9	21.5	25.1	11.1	26.8	17.1	13.8	26.5	12.3	6.9	22.5	17.4	12.5	20.7	24.8	9.3	22.2	15.9	7.6	43.9	29.2	11.0
4-MBW-FU	8.0	5.4	1.7	8.8	2.6	0.8	4.7	3.9	1.0	1.4	2.3	0.7	0.9	2.3	1.2	2.9	2.5	2.6	12.3	16.1	8.3	14.4	14.3	12.2	5.2	5.9	5.5
5-FBW	3.7	3.6	2.1	3.5	2.2	2.2	4.5	1.8	3.9	4.6	2.0	2.5	1.1	2.2	1.8	11.0	9.4	9.8	9.0	4.9	7.8	8.5	10.6	8.4	2.6	4.2	3.7
6-WKL	12.0	2.2	1.0	6.9	1.6	0.0	2.4	0.8	1.0	9.4	2.0	0.4	0.7	0.9	0.5	19.8	10.8	3.7	11.5	6.7	2.5	16.5	8.3	3.4	10.6	2.5	0.6
7-OTH	22.2	13.0	11.6	13.3	8.6	13.6	9.4	5.9	5.9	14.2	10.9	11.3	15.9	16.1	19.4	28.2	17.4	14.8	15.8	11.5	5.9	9.0	5.1	4.1	6.8	4.1	4.4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Endnotes

[i] EU-SILC data are available for all EU-27 countries since 2007. Norway, Iceland and Switzerland also contributed comparable data. Countries that provided data since 2005 were included in the analysis.

[ii] The specific releases of the cross-sectional users' database are: version 2007-6 from 01-08-11, version 2010-5 from 01-03-14 and version 2012-3 from 01-03-15. Eurostat has no responsibility for the results and conclusions of the article.

[iii] The effect of children on the household organization of work is the object of another publication. Findings are available upon request.

[iv] The growth of single parenthood is an issue with strong implications for the discussion on changes in the household organization of employment. However, an analysis of the complex dynamics involved in the changing frontiers of single parenthood is not feasible within the word limit and scope of the article.

[v] The first six household types accounted for over 80 percent of all households in each of the years and countries analysed; in some countries they represented over 90 percent of the population.

[vi] The categories differ from ILO definitions given that the information is self-reported, which may have implications for the distinction between full-time and part-time employment or unemployed and inactive. However, aggregate figures appear rather consistent with those obtained from other sources based on non-self-reported criteria.

[vii] Self-defined economic status was crosschecked with the number of hours respondents reported working. Inconsistencies higher than three per cent of the households were reported; tables are available upon request.

[viii] Ward was used as a clustering method and Euclidean Squared Distance as a measure.

[ix] EU-SILC codes educational attainment in six categories according to the International Standard Classification of Education (ISCED97), which were merged into three. Low education includes less than upper secondary education (levels zero, one and two). Medium corresponds to upper secondary and/or non-specialized vocational education (levels three and four) and high indicates completion of tertiary education, including specialized vocational education (levels five and six).

[x] Agglomeration Schedule tables are available upon request.

[xi] Using, like Hook (2015) the 80/20 percentile ratio, calculated as the ratio of total income received by the 20 percent of the population with the highest income to that received by the 20 percent of the population with the lowest income (Eurostat, 2007).

[xii] We focus on the impact of the crisis in terms of employment destruction and do not use other measures such as GDP.

[xiii] The patterns affecting FBW households appear more clearly when analysed by the educational attainment of the man, as could be expected. Findings are available upon request.

[xiv] A methodological comment is due on the Danish data, which shows a steep decrease in BFT households (-18,1 pp) between 2010 and 2012 and an increase of 10,1 pp in MMBW households. This is largely due to a change in the methodology of data collection. Before 2012, the Danish Statistic Institute determined part-time employment status as being employed less than 30 hours per week. From 2012 on they adopt the self-definition question, as established in EU-SILC criteria.

[xv] Consequently, the country is represented within the Polarized cluster in figure 7.

[xvi] To be highlighted are the differences with Saraceno & Keck's (2011) work, which includes almost the same countries used in our analysis. They distinguish between countries with i) strong defamilialization and weak supported familialism (Denmark, Norway, Sweden); ii) strong supported familialism and weak defamilialization (Austria, Czech Republic, Germany, Estonia, Hungary, Lithuania, Luxembourg, Slovakia); iii) weak supported familialism and defamilialization (Greece, Italy, Latvia, Poland, Portugal, Spain); iv) internally divergent (Belgium, Finland, France, Ireland, Netherlands, Slovenia, United Kingdom).

[xvii] Additional dimensions that may also have an effect on household employment patterns include regional, urban-rural, generational and, ethnicity factors (Zuccotti and O'Reilly, 2018). However, these are beyond the aims and scope of this article but would be worth exploring in future research.